

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/02673

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ C01G23/07 B01J35/02 C08L83/04 C08K3/22 H01L31/04 H01M14/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ C01G23/07 B01J35/02 C08L83/04 C08K3/22 H01L31/04 H01M14/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Japanese Utility Model Gazette 1926-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2003, Japanese Registered Utility Model Gazette 1994-2003, Japanese Gazette Containing the Utility Model 1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5698177 A (UNIVERSITY OF CINCINNATI) 1997.12.16 claim, lines 5-64, column 7, table 1-2 & WO 96/06803 A & JP 10-505316 W	1-36
A	JP 2001-151509 A (TOHO TITANIUM CO., LTD.) 2001.06.05 claim, [0018] - [0021], [0028], [0034] - [0043] (Family:none)	1-36
A	JP 2001-39704 A (ISHIHARA SANGYO KAISYA, LTD.) 2001.02.13 clame, [0007], [0008], [0021], example (Family:none)	1-36
A	WO 01/023305 A (SHOWA DENKO K.K) 2001.04.05 claim, example, lines 7-20, page 4 & EP 1243555 A	1-36



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

15.06.03

Date of mailing of the international search report

01.07.03

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